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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------|-------------|----------------------|---------------------|------------------|
| 10/662,084 | 09/12/2003 | Douglas P. Goetz | 55044US009 | 8857 |
| 32692 | 7590 | 06/09/2006 | EXAMINER | |
| 3M INNOVATIVE PROPERTIES COMPANY | | | ELEY, TIMOTHY V | |
| PO BOX 33427 | | | ART UNIT | |
| ST. PAUL, MN 55133-3427 | | | PAPER NUMBER | |
| | | | 3724 | |
| DATE MAILED: 06/09/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/662,084

Applicant(s)

GOETZ, DOUGLAS P.

Examiner

Timothy V. Eley

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Allowable Subject Matter

1. The allowable subject matter indicated in the office action filed November 25, 2005, is hereby withdrawn. The claims have been reconsidered with respect to Rutherford et al (6,007,407). A prior art rejection of the claims using the Rutherford et al reference is given below.

Claim Objections

2. Claims 16 and 17 are objected to because of the following informalities:

- Applicant recites contacting the first region of the apparatus of claim 13 with a semiconductor wafer; and contacting the second region of the apparatus of claim 13 with the semiconductor wafer. However, the first and second regions are located on the rigid segment, which is located between the fixed abrasive element and the resilient element. Therefore, it is not readily apparent as to exactly how the semiconductor is capable of contacting the first and second regions. Apparently applicant is referring to contacting the areas of the fixed abrasive element located next to first and second regions of the rigid segments. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, and 4-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Rutherford et al (6,007,407).

- Rutherford et al discloses an apparatus for modifying the surface of a semiconductor wafer, the apparatus comprising; a textured three-dimensional, fixed abrasive element(16) comprising a plurality of abrasive particles; a resilient element(14); and a plurality of rigid segments(12) disposed between the fixed abrasive element and the resilient element. See figure 1; column 3, lines 29-43;
- Regarding claim 1, Rutherford et al discloses that the rigid segment(12) can include more than one layer of the same or different material. Therefore, the rigid segment(12) may consist of a plurality of rigid segments(12). See column 5, lines 4-14.
- Regarding claims 4 and 5, the fixed abrasive element is bonded to the rigid segments, which are bonded to the resilient element.
- Regarding claims 6,7,9, and 10-12, applicant's broad recitation of "capable of moving relative" is seen to be met by Rutherford et al, since any particular element/segment may be pushed on an outer edge(inherently) and moved relative to another element/segment.
- Regarding claim 8, the elements/segment are inherently webs and clearly seen in figure 1.

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- Regarding claim 13, Rutherford et al discloses first and second cross sectional areas which are different from each other, since applicant does not recite that the areas have different dimensions.
- Regarding claim 14, the plurality of rigid segments comprise a material selected from the group consisting of metal and plastic. See column 7, lines 53-end to column 8, lines 1-11.
- Regarding claims 15-17, Rutherford et al discloses a method of modifying the surface of a semiconductor wafer by contacting the apparatus as disclosed with a semiconductor wafer as recited by applicant. Claim 16 is interpreted as contacting the abrasive element above the first and second regions of the plurality of rigid segments. See claim 3.

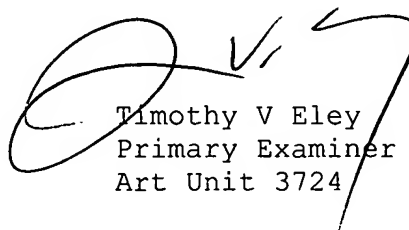
Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy V. Eley whose telephone number is 571-272-4506. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Timothy V Eley
Primary Examiner
Art Unit 3724

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